Remarks

The various parts of the Office Action (and other matters, if any) are discussed below under appropriate headings.

Claim Rejections - 35 USC § 103

Claims 1-4, 7-8 and 12-13 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,749,821 to Simmons in view of U.S. Patent No. 5,356,363 to Kopp et al. ("Kopp").

Simmons discloses an end-of-web detector located upstream of a conversion assembly for detecting the end of a multi-ply web of sheet material. Simmons, however, only detects the end of the longest of the plies after the ends of other plies have already passed the sensor.

As described in the background portion of the specification, operators of converters such as that disclosed in Simmons have encountered a problem in that the ends of the plies of a spent multi-ply roll do not always align with one another. Prior end-of-web detectors only trigger an end-of-web command after the longest ply has passed the detector, at which point, it may be difficult or impossible to splice the shortest ply to a ply from a new stock roll.

Kopp discloses an apparatus for simultaneously forming a plurality of flat packaging bags (three in the example), each from separate input webs of material and each converted into bags independently of one another by a separate converter, i.e., in parallel. Each input web has a sensor for detecting the end of a single ply stock material unwound from a roll. If a sensor detects the end of a roll, the converter for that input web is stopped so that a new roll can be loaded. The other input webs, however, continue their normal travel through their respective converters.

It is respectfully submitted that there is no motivation to combine Kopp and Simmons. Problems associated with multi-ply conversion have been described in the background of the specification, as noted above and in the response to the May 4, 2005 Office Action. Like Simmons, Kopp does not address these problems. Kopp's multiple

sensors perform the same function as Simmons's single sensor, namely detecting the end of a supply of stock material coming off a roll. When Kopp detects the end of one supply, only the machine associated with that supply is stopped. Consequently, there is reason to modify Simmons's conversion machine to include multiple sensors for separate infeed paths to a single conversion machine because Kopp's sensors function in substantially the same manner as Simmons's lone sensor.

Moreover, even if combined, the claimed system would not result. Simmons shows a single sensor for detecting the end of all of the plies of a multi-ply web of sheet material. Modifying Simmons in view of Kopp is equivalent to using three of Simmons's converters side-by-side, each essentially operating separately for the purposes of feed and conversion, and each using a separate sensor for detecting the end of each supply roll. Kopp shows a single sensor for each supply web and converter rather than multiple sensors that detect the presence or absence of a respective ply of a multi-ply sheet stock material. Thus, even if combined, Simmons and Kopp do not teach or suggest all of the limitations of claim 1.

Withdrawal of the rejection is requested.

Claims 5, 6 and 9-11 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Simmons and Kopp and further in view of U.S. Patent No. 6,756,096 to Harding ("Harding").

Similar to Simmons, Harding discloses a multi-ply supply of sheet stock material on a stock roll. As noted by the Examiner in the May 4, 2005 Office Action, Harding does not disclose an end-of-web detector. Therefore, Harding cannot overcome the deficiencies of Simmons and Kopp.

Simmons, Kopp, and Harding do not address or solve the problems addressed by the claimed system, and there is nothing in Simmons, Kopp, or Harding to suggest that advantage can be gained by providing an end-of-web sensor for each ply of a multi-ply stock material.

Withdraw of the rejection is respectfully requested.

New Claim 14

New claim 14 is submitted for favorable examination in view of the forgoing comments regarding the applied references.

Conclusion

In view of the foregoing, request is made for timely issuance of a notice of allowance.

Respectfully submitted,

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CERTIFICATE OF FACSIMILE TRANSMITTAL

[x] I hereby certify that this paper, and any documents referred to as attached or enclosed, is being facsimile transmitted to the Patent and Trademark Office (fax no. 571-273-8300) on the date shown below.

Date: April 28, 2006

Kristine A. Webb

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